6. (**Amended**) The method of claim 1, wherein the cancer is in cells of epithelial origin.

7. The method of claim 6, wherein the cancer is selected from the group consisting of cancers of the nervous system, breast, retina, lung, skin, kidney, liver, pancreas, genito-urinary tract, and gastrointestinal tract.

8. (**Amended**) The method of claim 1, wherein the cancer appears in cells of mesodermal origin.

9. (**Amended**) The method of claim 1, wherein the cancer appears in cells of endodermal origin.

10. (**Amended**) The method of claim 1, wherein the cancer affects cells of bone or of hematopoietic origin.

16. (**Amended**) The method of claim 1, wherein the matrix metalloproteinase is a proenzyme.

17. The method of claim 1, further comprising removal of low molecular weight contaminants from the urine prior to the detection step.

18. The method of claim 17, wherein the urine is dialyzed.

19. (**Amended**) A non-invasive method for facilitating the diagnosis of a subject for prostate cancer, comprising:
    obtaining a urine sample from a subject; and
    detecting a matrix metalloproteinase in the urine sample, thereby facilitating the diagnosis of the subject for prostate cancer.

24. (**Amended**) The method of claim 19, wherein the prostate cancer is organ-confined prostate cancer.

25. The method of claim 19, wherein the subject has previously been treated surgically or hormonally.

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26. The method of claim 25, wherein the subject has been treated to block testosterone.

27. (Amended) The method of claim 19, wherein the prostate cancer is metastatic cancer.

31. (Amended) The method of claim 19, wherein the matrix metalloproteinase is gelatinase A or gelatinase B.

34. (Amended) The method of claim 19, further comprising removal of low molecular weight contaminants from the urine prior to the detection step.

47. (Amended) The method of claim 1, wherein the matrix metalloproteinase has a molecular weight of approximately 72 kDa or approximately 92 kDa.

48. (Amended) The method of claim 1, wherein the matrix metalloproteinase has a molecular weight of approximately 150 kDa.

50. (Amended) The method of claim 1, wherein the matrix metalloproteinase is detected electrophoretically.

51. The method of claim 50, wherein the electrophoretic pattern is a zymogram.

52. The method of claim 51, wherein the zymogram substrate is gelatin, casein, fibronectin, vitronectin, plasmin, plasminogen, type IV collagen, or a derivative of type IV collagen.

53. The method of claim 1, wherein the enzyme is detected immunochemically.

54. The method of claim 53, wherein the enzyme is detected by a radio-immune assay.

55. The method of claim 53, wherein the enzyme is detected by an enzyme-linked immunosorbant assay.

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65. (**Amended**) The method of claim 1, wherein the cancer is breast cancer.

122 ~~104~~. (**New**) A non-invasive method for facilitating the diagnosis of a subject for cancer, comprising:

obtaining a urine sample from a subject;

detecting a gelatinase in the urine sample; and

correlating the presence or absence of the gelatinase with the presence or absence of cancer, thereby facilitating the diagnosis of the subject for cancer.

123 ~~105~~. (**New**) A non-invasive method for facilitating the diagnosis of a subject for prostate cancer, comprising:

obtaining a urine sample from a subject;

detecting a gelatinase in the urine sample; and

correlating the presence or absence of the gelatinase with the presence or absence of prostate cancer, thereby facilitating the diagnosis of the subject for prostate cancer.

124 ~~106~~. (**New**) A non-invasive method for facilitating the diagnosis of a subject for bladder cancer, comprising:

obtaining a urine sample from a subject;

detecting a matrix metalloproteinase in the urine sample; and

correlating the presence or absence of the matrix metalloproteinase with the presence or absence of bladder cancer, thereby facilitating the diagnosis of the subject for bladder cancer.

125 ~~107~~. (**New**) The method of claim 106, wherein the matrix metalloproteinase is gelatinase.

126 ~~108~~. (**New**) A non-invasive method for facilitating the diagnosis of a subject for renal cancer, comprising:

obtaining a urine sample from a subject;

detecting a matrix metalloproteinase in the urine sample; and

correlating the presence or absence of the matrix metalloproteinase with the presence or absence of renal cancer, thereby facilitating the diagnosis of the subject for renal cancer.

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~~109~~. (New) The method of claim 108, wherein the matrix metalloproteinase is gelatinase.

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~~110~~. (New) A non-invasive method for facilitating the diagnosis of a subject for lymphoma, comprising:

obtaining a urine sample from a subject;

detecting a matrix metalloproteinase in the urine sample; and

correlating the presence or absence of the matrix metalloproteinase with the presence or absence of prostate cancer, thereby facilitating the diagnosis of the subject for lymphoma.

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~~111~~. (New) The method of claim 110, wherein the matrix metalloproteinase is gelatinase.